

# A PICTURE'S WORTH:



## \*\* GRAPHICS CAPABILITIES \*\*

- ♦ High Performance Graphics
- ♦ Tektronix 4010 Compatibility
- ♦ Automatic Scaling (1023x1023) with 250x512 resolution
- ♦ Alpha Mode (35 lines x 73 cols)
- ♦ Optional Joystick
- ♦ Connection to Low Cost Printer for Graphics Hardcopy
- ♦ ASCII and APL character sets
- ♦ Block Fill, Dotted/Dashed Lines

## \*\* DISPLAY TERMINAL CAPABILITIES \*\*

- ♦ ANSI Standard Conformance
- ♦ DEC Software Compatibility
- ♦ 80/132 Columns, Windowing
- ♦ 4 Pages of Memory Standard (up to 8)
- ♦ 43 Programmable Functions
- ♦ ASCII and APL models
- ♦ High Resolution Amber Phosphor
- ♦ Setup Mode



Whether used in video display mode or in its high-performance graphics mode, Human Designed Systems' concept GVT has more to offer at its price for terminal operators, interactive users, and applications developers than any other terminal available today.

# CONCEPT GVT<sup>TM</sup> Graphic Display Terminal

A practical resolution for your business and analysis graphics requirements

The Human Designed Systems' concept GVT Graphics Display Terminal. Combining high-performance graphics with the industry's "smartest" interactive display terminal. Providing features which extend beyond the capabilities of the Tektronix® 4010...and at a price that makes it the

industry's best graphics terminal buy. And, whether used in video display mode or in its high-performance graphics mode, offering more at its price for terminal operators, interactive users, and applications developers than any other terminal available today.

## In graphics mode...

The *concept* GVT provides software compatibility with the Tektronix 4010 with its standard vector (780 x 1024), alpha (35 lines by 73 columns) and GIN (graphical input) modes. It provides many capabilities beyond those of the 4010 — including vector and character erasure or write-over, block fill, memory dump and load, dotted and dashed lines, hardcopy production via attachment to a low-cost printer, and graphics memory dim. Graphics memory can be accessed by either of the terminal's two standard bidirectional communications interfaces.

These capabilities make the *concept* GVT ideally suited for a wide range of graphics applications:

- Quick and simple data analysis and presentation of low-resolution business graphics (e.g. bar and pie charts, and curve fitting)
- Low-cost and fast method to preview and print high-resolution complex graphic presentations
- Practical, low-cost solution for low-resolution CAD/CAM applications

## In interactive display mode...

The *concept* GVT offers all of the capabilities of the industry's smartest terminal — the *concept* AVT<sup>TM</sup>. Standard capabilities include ANSI X3.64-1979 standard conformance, DEC® software compatibility, four pages of memory, 80/132 columns, windows, easy-to-use setup mode, 43 fully programmable functions, multiple character sets, non-volatile memory for permanent terminal reconfiguration, text editing and data entry applications functionality, two bidirectional communications interfaces for simultaneous connection to multiple computers, block mode and much more — to provide the perfect tool for terminal operators, interactive users and applications developers. Please see the *concept* AVT product specification (DN 2301-8211-2) for a complete description of these capabilities.

An APL version (*concept* GVT-APL) is also offered, which provides both APL and ASCII character sets and software compatibility with the Tektronix 4013.

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- Concept GVT Four-Page ASCII
- Concept GVT-APL Four-Page APL-ASCII

## GRAPHICS MODE FUNCTIONAL CAPABILITIES

### Vector Mode

Vector draw or block fill  
Resolution: 250 x 512 scaled from 780 x 1024.

Data levels: black, white, opposite (write-over)

Line types: normal, dotted, dot-dashed, short-dashed, long dashed.

### Alpha Mode

Character set: 96-character upper/lower case ASCII

Screen format: 35 lines by 73 columns  
Character formation: 6 x 6 within a 7 x 7 dot matrix

Auto wraparound to second column on page full

Cursor controls: up, down, left, right

### GIN Mode (Graphical Input)

Use of cursor controls (up, down, left, right) or optional joystick

### Additional Capabilities

Memory dump/load  
Print graphics memory  
Transmit status  
Dim graphics memory  
Ability to power up in graphics mode (required for true 4010 software compatibility)

## INTERACTIVE DISPLAY MODE FUNCTIONAL CAPABILITIES

### Same as concept AVT

See product specification DN 2301-8211-2

## PHYSICAL CHARACTERISTICS

### General

Dimensions: Monitor — 15¼" W x 14½" H x 16½" D (38.7 cm x 36.8 cm x 41.9 cm).

Keyboard — 17½" W x 3" H x 8¾" D (44.4 cm x 7.6 cm x 22.2 cm).

Power: 115 VAC; 60 Hz  
optional: 220/240 VAC, 50 Hz  
Weight: 38 lbs. (17.27 kg)

### Memory

Size: Graphics — one page.  
Interactive display — four pages (96 80-column lines) standard; (eight pages optional: 192 80-column lines)  
Graphics memory and 24 lines of interactive display memory are displayed simultaneously at all times  
Either memory may be set to be non-visible.

### Display

12-inch diagonal high-quality direct-etch amber (ALA) phosphor. No-cost options include direct-etch white (P4) or green (P31)

## Keyboard

Detached via retractile coiled cord  
102 keys with numeric, cursor control and function pads standard. Forty-three programmable functions.

## Communications

Code: ASCII  
Type: Two bidirectional RS232C interfaces (20 mA current loop optional), 50-9600 baud (15 rates)

Parity: even, odd, none, mark, space

Duplex: half/full

Stop bits: one or two

Controls: XON/XOFF and EIA CTS/RTS handshake

## Graphics Options

Joystick: alternate GIN mode input



# HDS

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